U.S. Department of the Interior
Bureau of Land Management
Little Snake Field Office
455 Emerson Street
Craig, CO 81625-1129

ENVIRONMENTAL ASSESSMENT

EA-NUMBER: DOI-BLM-CO-N010-2011-0004-EA

PERMIT/LEASE NUMBER: N/A

PROJECT NAME: Greystone North Fuels Reduction

LEGAL DESCRIPTION: The project is located in all or a portion of the following sections:

T8N R100W Sections 19 & 30; T8N R101W Sec 24
Moffat County

APPLICANT: BLM

PLAN CONFORMANCE REVIEW: The proposed action is subject to the following plan:

Name of Plans: Little Snake Resource Management Plan and Record of Decision

Date(s) Approved: April 26, 1989

Results: The treatment area falls within Management Unit 3: Little Snake River, identified in the Little Snake Resource Management Plan and Record of Decision. The management objectives for this unit are to improve soil and watershed values, increase forage production and enhance livestock grazing. The development of other resource uses/values within this unit is allowed consistent with the management objectives for livestock grazing, forage production, soil and watershed resource objectives. The proposed action has been reviewed for conformance with this plan (43 CFR 1610.5, BLM 1617.3). The proposed alternatives are in conformance with the objectives of the Little Snake Resource Management Plan.

RELATIONSHIP TO STATUTES, REGULATIONS, OR OTHER PLANS:

Northwest Colorado Fire Management Program Fire Management Plan: The proposed action falls within a D1 polygon, West Little Snake & Disappointment. The vegetation description, as identified in the Fire Management Plan, of this polygon is described as supporting a mix of pinyon-juniper, sagebrush, and mountain shrub. The desire is to create a mosaic of vegetative age classes. The resource management objective of the Fire Management Plan for this fire polygon is to encourage fire to promote mosaic age classes in all plant communities.

The Proposed Action implements actions recommended in the following Plans, Acts, and Policies:

National Fire Plan of 2000
Collaborative Approach to Reducing Wildland Fire Risks to Communities and the Environment 10-Year Comprehensive Strategy Implementation Plan of May 2002.
Federal Land Assistance, Management and Assistance Act of 2009.
Healthy Forest Restoration Act of 2003
Greystone Community Wildfire Protection Plan

PURPOSE AND NEED: Need for Proposed Action: In accordance with the National Fire Plan of 2000, public agencies are directed to take actions to reduce hazardous fuels, especially in those areas where communities and human development are at risk from wildfire. The Little Snake Fire Management Plan (March 2000, updated annually), identifies areas where fuels reduction treatments are desired and needed. The Greystone community Wildfire Protection Plan has identified the need for hazardous fuels reduction in and around that community. Inherent to complying with these plans is the need to reduce fuels to help protect life, property, and natural resources. Several previous fuels reduction projects have been completed around Greystone and this project dovetails into what has previously been done. The area around Greystone is one of the higher fire occurrence zones in the Northwest Colorado fire Program Area. Reducing hazardous fuel loading would lower the risk of wildfires causing damage to community homes and property by reducing fire behavior intensity and the range of environmental conditions under which fire can actively spread. This would allow fire suppression forces to be more effective and provide a safer fire environment to work in.

The primary objective for this project is hazardous fuels reduction, but wildlife habitat, range improvement, and general ecosystem restoration would also benefit.

PUBLIC SCOPING PROCESS: The project is listed on the NEPA log on the Little Snake Field Office website: http://www.blm.gov/co/st/en/BLM_Information/nepa/lsfo.html. A letter explaining the project and soliciting feedback was sent to each of the Greystone residents. No comments have been received.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

NO ACTION ALTERNATIVE: Under this alternative, hazardous fuel reduction activities would not occur.

CHEMICAL TREATMENT ALTERNATIVE: Using herbicides to kill woody vegetation was considered as a treatment option but dropped from further analysis because of the high volume of woody material left after treatment. Chemical treatment would not fully achieve hazardous fuels reduction objectives and visual resources would be impacted.

PROPOSED ACTION:

Description of Proposed Action: It is proposed to mechanically treat approximately 237 acres of vegetation just north of Greystone, CO. This is a sagebrush dominated area with young

juniper trees encroaching throughout the area. All juniper trees within the project area would be mulched with the exception of three islands of mature trees (see attached maps). Approximately 45% (106 acres) of the sagebrush would be mowed in mosaic pattern with untreated islands of .5 acre to 1 acre scattered throughout. A buffer of 50' either side of the county roads within the project area would be completely mowed. Operations would not be allowed in muddy conditions. To prevent impacts to nesting migratory bird species, no treatment would occur from May 15 – July 15.

The machinery needed to mulch the juniper trees includes a large rubber tired tractor (similar to a skidder) or a smaller tracked skid-steer powering a 6' – 8' mulching head. These machines shred trees into a woody mulch of ¼" to 2" diameter chunks with some small limbs left over. The mulch is spread out but is thicker in the immediate vicinity of the tree. Because most trees are small, the mulch is not likely to be thicker than 2" and all stumps would be ground down to a height of 4 inches or less. Sagebrush may be mulched with one of the above machines or a rubber tired farm tractor pulling a rotary brush mower, and would be mowed to a height of approximately three inches.

AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES

For the following resources and issues, those brought forward for analysis will be addressed below.

Resource/Issue	N/A or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Air Quality			ELS 5/23/11
Areas of Critical Environmental Concern	DRB 5/24/11		
Cultural Resources			EM 6/3/11
Environmental Justice/ Socio-Economics			LM 5/13/11
Flood Plains	DRB 5/16/11		
Fluid Minerals	DRB 5/24/11		
Forest Management			DRB 4/21/11
Hydrology/Ground			EMO 5/20/11 See Water Quality-Ground
Hydrology/Surface			ELS 5/23/11 See Water Quality-Surface
Invasive, Non-native Species			DRB 5/24/11
Native American Religious Concerns			EM 6/3/11
Migratory Birds			DA 5/20/11
Paleontology			EMO 5/20/11
Prime and Unique Farmland	DRB 5/16/11		

Range Management			HS 5/23/11
Realty Authorizations			LM 5/13/11
Recreation/Transportation		GMR 6/15/11	
Soils			ELS 5/23/11
Solid Minerals		JAM 5/10/11	
T&E and Sensitive Animals			DA 5/20/11
T&E and Sensitive Plants			HS 5/23/11
Upland Vegetation			HS 5/23/11
Visual Resources		GMR 6/15/11	
Water Quality - Ground			EMO 5/20/11
Water Quality - Surface			ELS 5/23/11
Wetlands/Riparian Zones	ELS 5/18/11		
Wild and Scenic Rivers	DRB 5/16/11		
Wild Horse & Burro Mgmt	DRB 5/17/11		
Wilderness Characteristics/WSA's	DRB 5/24/11		
Wildlife - Aquatic	DA 5/20/11		
Wildlife - Terrestrial			DA 5/20/11

AIR QUALITY

Affected Environment: There are five Federal Class I areas within 100 kilometers or adjacent to the Little Snake Resource Management Area (LSRMA) boundary, all of which occur in Colorado. The Class I areas are Rocky Mountain National Park and the Mount Zirkel, Flat Tops, Rawah, and Eagles Nest Wilderness areas. There are no federal Class I areas in Utah or Wyoming within 100 km of the LSRMA boundary. There are no non-attainment areas nearby that would be affected by either alternative.

Environmental Consequences, Proposed Action: Mechanical treatments proposed would not be expected to affect air quality other than localized short term dust production. In general, landscapes that have received fuel reduction treatments are expected to have fewer impacts to air quality, both in the short and the long term, because of the incremental reduction of fuels and the periodic release of small amounts of air quality pollutants. Pollutant emissions released at this smaller scale are not expected to cause air quality impairment to urban areas or Class 1 areas, or if they do would be of a much shorter duration.

Environmental Consequences, No Action Alternative: The direct environmental consequences associated with fuels reduction activities would be absent in the no action alternative. However, in the long term it would be possible to have a substantially greater air quality impairment episode as a result of increasing the potential for large scale uncontrolled wildfires. A large fire in this area has the potential to impact air quality of urban areas and reduce visibility within the two Class 1 areas.

Mitigative Measures: None

Name of specialist and date: Emily Spencer, 5/23/11

CULTURAL RESOURCES

Affected Environment: Cultural resources, in this region of Colorado, range from late Paleo-Indian to Historic. For a general understanding of the cultural resources in this area of Colorado, see ***An Overview of Prehistoric Cultural Resources, Little Snake Resource Area, Northwestern Colorado***, Bureau of Land Management Colorado, Cultural Resources Series, Number 20, ***An Isolated Empire, A History of Northwestern Colorado***, Bureau of Land Management Colorado, Cultural Resource Series, Number 2 and ***Colorado Prehistory: A Context for the Northern Colorado River Basin,*** Colorado Council of Professional Archaeologists.

Environmental Consequences, Proposed Action: The proposed project, Greystone North Fuels Reduction, has not undergone a Class III cultural resource survey. Class III survey is required in all mechanical thinning areas prior to the undertaking. Once the area is surveyed, the Contracting Officers Representative will be notified as to any mitigation that must occur prior to the project beginning.

Environmental Consequences, No Action Alternative: The direct environmental consequences associated with fuels reduction activities would be absent in the no action alternative. However, the increased potential for large scale uncontrolled wildfires if no mechanical thinning was undertaken increases the risk to any structural archaeological or historic sites in the area. Increased erosion after a large scale fire also has the potential to adversely effect buried cultural material.

Mitigative Measures:

The following standard stipulations apply for this project:

1. Any cultural and/or paleontological (fossil) resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and the authorized officer will make any decision as to proper mitigation measures after consulting with the holder.

2. The operator is responsible for informing all persons who are associated with the operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any project activities, the operator is to immediately stop activities in the immediate vicinity of the find and immediately contact the authorized officer (AO) at (970) 826-5000. Within five working days, the AO will inform the operator as to:

    - Whether the materials appear eligible for the National Register of Historic Places;

- The mitigation measures the operator will likely have to undertake before the identified area can be used for project activities again; and
- Pursuant to 43 CFR 10.4(g) (Federal Register Notice, Monday, December 4, 1995, Vol. 60, No. 232) the holder of this authorization must notify the AO, by telephone at (970) 826-5000, and with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

3. If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

Name of specialist and date: Ethan Morton June 3, 2011

ENVIRONMENTAL JUSTICE and SOCIOECONOMICS

Affected Environment: Executive Order 12898 (20) requires federal agencies to assess projects to ensure there is no disproportionately high or adverse environmental, health, or safety effects on minority and low-income populations. Minorities comprise a small proportion of the population residing inside the boundaries of the Little Snake Field Office.

Environmental Consequences, Proposed and No Action Alternatives: No minority or low income populations would be directly affected in the vicinity of the proposed action. Indirect effects could include a small increase in activity and noise disturbance in areas used for grazing or hunting. Public land users would not be affected since all proposed activity would be for a short period of time.

Mitigative Measures: None

Name of specialist and date: Louise McMinn 05/13/11

INVASIVE, NONNATIVE SPECIES

Affected Environment: The project area is susceptible to the introduction and establishment of noxious and invasive weeds. These are annual invasive species (primarily cheatgrass and annual mustards) common in the western part of the Little Snake Resource area which spread into disturbed or resource stressed areas. Additional invasive species of concern in the vicinity

include leafy spurge, Canada thistle and other biennial thistles. These species are less likely to establish in undisturbed upland sites. Weed infestation can also occur from vehicles, animals, or wind carrying seed in from other areas. The BLM is in cooperation with Moffat County's Cooperative Weed Management program to control noxious weeds on public lands. Principals of Integrated Pest Management are employed to control noxious weeds on public lands.

Environmental Consequences, Proposed Action: The threat of weed infestation following the proposed action is low. The methods proposed cause little disturbance that would affect the herbaceous plant community. Removing the tree and shrub cover would provide additional resources to the herbaceous understory that would improve vigor and production in the long term. Adequate desirable vegetation exists in the understory which would provide competition to prevent weed invasions as well as maintain a desirable plant community. The livestock grazing rest stipulation would also assist in preventing the spread of invasive weeds.

Environmental Consequences, No Action Alternative: No new opportunities for weed establishment would occur under this alternative. The increasing threat of intense large fires exists. Under this alternative the project area would have a greater fuel load in the tree canopy and the vigor and production of the understory would be limited. This would affect the ability of the plant community in the project area to recover and compete with invasive species if a wildfire were to occur.

Mitigative Measures: None

Name of specialist and date: Dale Beckerman 5/24/11

MIGRATORY BIRDS

Affected Environment: BLM Instruction Memorandum No. 2008-050 provides guidance towards meeting BLM's responsibilities under the Migratory Bird Treaty Act (MBTA) and Executive Order (EO) 13186. The guidance emphasizes management of habitat for species of conservation concern by avoiding or minimizing negative impacts and restoring and enhancing habitat quality. The LSFO provides both foraging and nesting habitat for a variety of migratory bird species. Several species on the U.S. Fish & Wildlife Service (USFWS) List of Conservation Concern (2008) occupy these habitats within the LSFO.

Specific to the project area, native plant communities are comprised of sagebrush stands with encroaching junipers. Several sagebrush species occurring on the BCC list that may utilize sagebrush in the project area are sage sparrow, sage thrasher and Brewer's sparrow (also a BLM sensitive species). Habitat quality for sagebrush species has been reduced due to the encroachment of juniper trees. There are no active raptor nests in the vicinity of the proposed action.

Environmental Consequences, Proposed Action: Since project activities would not be permitted during the nesting period (May 15 – July 15), there would be little chance of take from the mechanical treatment. Individual birds would likely be displaced from the area during project

implementation due to noise and an increase in human presence. This disturbance would be minimal and short in duration. The removal of encroaching juniper trees would result in long-term benefits to sagebrush dependant bird species. The treatment would also open up older sagebrush stands, allowing for a more productive understory. The proposed fuels treatment would be compatible with maintaining suitable and productive habitat for sagebrush obligate species that utilize semi-opened sagebrush stands.

Environmental Consequences, No Action Alternative: No vegetation treatments would occur under the No Action Alternative. Over time, sagebrush habitats would continue to be lost as pinyon-juniper woodland expansion continues. This may improve conditions for pinyon juniper woodland species.

Mitigative Measures: None

Name of specialist and date: Desa Ausmus 5/20/11

NATIVE AMERICAN RELIGIOUS CONCERNS

Letters were sent to the Uinta and Ouray Tribal Council, Southern Ute Tribal Council, Ute Mountain Utes Tribal Council, Shoshoni Tribal Historic Preservation Officer, and the Colorado Commission of Indian Affairs in the spring of 2010 discussing upcoming projects the BLM would be working on in FY10 and FY11. Letters were followed up with phone calls. No comments were received (Letters on file at the Little Snake Field Office, Craig, Colorado). If geocaching events and caches are later determined to impact Native American Religious sites then the cache locations will be relocated.

Name of specialist and date: Ethan Morton June 3, 2011

PALEONTOLOGY

Affected Environment: The geologic formation at the surface is the Tertiary age Browns Park Formation (Tbp). Maximum thickness is highly variable but is considered to be about a maximum of 500 meters. This formation has been classified a Class Ia formation for the potential for occurrence of scientifically significant fossils.

Environmental Consequences, Proposed Action Alternative: Scientifically significant fossils are found abundantly within this formation (Armstrong & Wolney, 1989). The potential for discovery of significant fossils within this formation is considered to be high; however, potential for discovery of fossils through a surface survey on this location is considered low because of the specific facies of the Browns Park Formation. Potential for buried fossils is considered moderate to low. If any such fossils are located here, construction activities could damage the fossils and the information that could have been gained from them would be lost. The significance of this impact would depend upon the significance of the fossil. The proposed action could also constitute a beneficial impact to Paleontological resources by increasing the chances for

discovery of scientifically significant fossils.
Environmental Consequences, No Action Alternative: None

Mitigative Measures: Ceasing operations and notifying the Field Office Manager immediately upon discovery of a fossil during construction activities may effectively mitigate the potential impact to Paleontological resources. If there is a discovery, an assessment of the significance will be made and a plan to retrieve the fossil or the information from the fossil developed.

References

Armstrong, Harley J. and Wolney, David G., 1989, Paleontological Resources of Northwest Colorado: A Regional Analysis, Museum of Western Colorado, Grand Junction, CO, prepared for Bur. Land Management, Vol. I of V.

Miller, A.E., 1977, Geology of Moffat County, Colorado, Colo. Geol. Surv. Map Series 3, 1:126,720.

Name of specialist and date: Marty O'Mara 5/20/11

T&E SPECIES - SENSITIVE PLANTS

Affected Environment: There are no BLM sensitive plant species within the proposed project area.

Environmental Consequences, Proposed and No Action Alternatives: None

Mitigative Measures: None

Name of specialist and date: Hunter Seim 5/23/11

T&E SPECIES – ANIMALS

Affected Environment: There are no ESA listed or proposed species that inhabit or derive important benefit from habitats within the project area. However, the general area provides habitat for greater sage-grouse, a BLM sensitive species and a candidate for federal listing. The closest known active sage-grouse lek is over 7 miles from the project, and therefore it is doubtful that grouse are using this area for nesting. The area is not classified as winter habitat and any use of the area by sage-grouse is likely incidental.
Environmental Consequences, Proposed Action: Since habitat in the project area is of low quality due to the number of encroaching juniper trees, it has very little value to grouse in its current condition. Most shrubs in the stand are older, with very few younger sagebrush plants establishing. The removal of juniper trees would return the area to a sagebrush/grass dominated ecosystem and this would maintain habitat for greater sage-grouse. The Proposed Action would also reduce sagebrush cover and increase the herbaceous component of the site. Sagebrush cover would be reduced in a mosaic fashion, with several islands providing cover and forage.

This should improve the overall health and vigor of sagebrush stands within the project area. Overall the project would be compatible with maintaining suitable grouse habitat.

Environmental Consequences, No Action Alternative: No mechanical treatments or prescribed burns would occur under the No Action Alternative. Over time, sagebrush habitats would continue to be lost as pinyon-juniper woodland expansion continues.

Mitigative Measures: None

Name of specialist and date: Desa Ausmus 5/20/11

T&E SPECIES – PLANTS

Affected Environment: There are no federally listed threatened or endangered plant species within the proposed project area.

Environmental Consequences, proposed and no action alternatives: None

Mitigative Measures: None

Name of specialist and date: Hunter Seim 5/23/11

WATER QUALITY - GROUND

Affected Environment: The area affected by the proposed action will have some ground water aquifers containing meteoric water. The ground water quality in the area ranges from potable to useable in aquifers within porous formations.

Environmental Consequences, Proposed Action: The proposed action would not impact ground water quality. The proposed action will be conducted in accordance with existing Colorado laws for water quality. Specifically, all permit activities must comply with the applicable water quality regulations in The Colorado Water Quality Control Act, and they will be in conformance with the classifications and numeric standards for water quality established by the Colorado Water Quality Control Commission.

Environmental Consequences, No Action Alternative: There would be no effect on water quality. The conditions would stay the same. It is possible that there would be a long term negative effect as species diversity and ground cover diminishes in the event of a wildfire.

Mitigative Measures: None

Name of specialist and date: Marty O'Mara, 5/20/11

WATER QUALITY – SURFACE

Affected Environment: The proposed project area is located on a gently sloping plateau north of

Greystone where any surface runoff water would flow northeast or west into ephemeral tributaries of Rye Grass Draw and Douglas Draw, with the potential (in extreme runoff events) of reaching perennial waters of Vermillion Creek and/or the Green River, each of which are over 10 miles downstream of the proposed project area. Water quality for all tributaries to the Green River in Colorado (expect for Vermillion Creek) must support Aquatic Life Cold 2, Recreation E, and Agriculture. Water quality for Vermillion Creek, including all tributaries and wetlands (from a point just below its confluence with Talamantes Creek to the confluence with the Green River) must support Aquatic Life Warm 2, Recreation N, and Agriculture. As of 2010, Vermillion Creek in this area (from Highway 318 to the Green River) is on the Colorado Department of Public Health and Environment's (CDPHE) Monitoring and Evaluation List for a suspected *E. coli* and total recoverable iron water quality problem (CDPHE 2010).

Environmental Consequences, Proposed Action: Minimal surface disturbance would occur with the proposed mechanical treatments. Little to no effect to water quality would be expected to result from implementing the mechanical fuel reduction treatments, particularly since the project would occur at the head of ephemeral tributaries that are a distance away from perennial waterways. In the long term, the proposed action would have a positive impact to water quality, as there will be a reduced potential for large scale wildfire. Mechanical treatments are not expected to further affect any existing *E. coli* and iron water quality issues.

Environmental Consequences, No Action Alternative: No direct effects on water quality are anticipated from selecting the No Action Alternative. Indirect negative effects could result if a large wildfire occurred in the area. In this event, substantially more sediment and nutrient loading of runoff waters would likely occur and it would be derived from a larger area of the landscape.

Mitigative Measures: None

Name of specialist and date: Emily Spencer, 5/23/11

Reference: Colorado Department of Public Health and Environment Water Quality Control Commission. 2010. Regulations #33, 37, and 93. http://www.cdphe.state.co.us/regulations/wqccregs/index.html

SOILS

Affected Environment: The table below (Table 1) describes the major soil groups included within the proposed project area, which can be described as a gently rolling plateau. A site nearby the proposed project area was assessed in 2005 for overall land health. The assessment found that surface soil characteristics were stable with adequate vegetative density and diversity to deter accelerated erosion. In the area overall, there was little to no evidence of soil movement, compaction, or overland water flow. Biological soil communities were in place and intact where expected. The main risk to these soils is erosion unless close-growing plant cover is maintained.

Table 1: Soil Summary for the Greystone North Fuels Reduction Project

Soil Map Unit (MU) & Soil Name	Map Unit Setting	Description

MU 50 Cushool fine sandy loam, 3 to 12% slopes	*Elevation:* 6,000' – 6,800' *Mean annual precipitation:* 11-13" *Ecological Site:* Rolling Loam	These plateau and hillslope soils are well drained with moderate permeability and medium runoff potential. Available water capacity is low and the soil profile is typically 29" deep, composed mostly of fine sandy loam down to bedrock. This soil has limitations that restrict the choice of plants or that require very careful management, or both.
MU 162 Rock River sandy loam, 3 to 12% slopes	Elevation: 6,200 to 7,200 feet Mean annual precipitation: 11 to 13" Ecological Site: Rolling Loam	These alluvial fan and hillslope soils are well drained with moderate permeability and medium runoff potential. Available water capacity is moderate and the soil profile is typically up to 60" deep, composed mostly of sandy loam and sandy clay loams.
MU 90 Grieves-Crestman complex, 10 to 40% slopes	*Elevation:* 6,000 to 7,200 feet *Mean annual precipitation:* 11 to 12" *Ecological Site:* Sandy Foothills and Sandy Juniper	These summit and backslope soils are somewhat excessively to excessively drained with moderately rapid permeability and medium to very high runoff potential. Available water capacity is very low to moderate and the soil profile is typically 18 to 60" deep, composed mostly of fine sandy loam and gravelly loamy sand.

Data taken from *Soil Survey of Moffat County Area, Colorado (2004).*

Environmental Consequences, Proposed Action: Any vegetation management activity that causes mechanical soil disturbance can have negative impacts to soil productivity, nutrient cycling, soil cover, and vegetation recovery. These impacts are common to any type of soil disturbance. There is a risk of compaction from the equipment used in the project, which could increase surface flows and erosion, an identified hazard in this soil type. However, if cover limits are maintained these effects would be reduced. Effects would also be reduced if the treatment is only performed on dry ground as planned, thereby decreasing ruts and new overland flow patterns.

Environmental Consequences, No Action Alternative: There would be no direct impacts to the soil resource if no actions are implemented. However, the threat of larger more intense fires occurring under extremely dry conditions exists if fuel reduction treatments are not implemented. The scale and duration of adverse soil effects would be much higher under the extreme burning conditions that exist for large fire occurrence.

Mitigative Measures: None

Name of specialist and date: Emily Spencer, 5/23/11

FORESTRY

Affected Environment: The area contains scattered young juniper trees which are not commercially important or utilized for any known personal use. This is not a typically forested site.

Environmental Consequences, Proposed Action: The removal of all young juniper trees would affectively maintain the area as a non-forested site and prevent tree cover from increasing to

point of being considered a juniper woodland.

Environmental Consequences, No Action Alternative: If no tree mulching occurs and fire exclusion continues, the area will eventually become a juniper woodland with little herbaceous or shrub growth in the understory.

Mitigative Measures: None.

Name of specialist and date: Dale Beckerman, 04/21/11

RANGE MANAGEMENT

Affected Environment: The proposed treatment would be located on the Browns Park Allotment #04320. The allotment is permitted for 4,855 AUMs of cattle use between October 15 and June 15.

Environmental Consequences, Proposed Action: The area would not be closed to livestock grazing after the implementation of the treatments, but this treatment would be in a pasture that is primarily grazed in the spring. In the years following the treatment, the increases in forage species would attract much higher levels of grazing use by both cattle and wildlife as there would be a flush of new growth and increased palatability relative to surrounding areas. In order to ensure that the benefits to herbaceous species are maximized, spring use in this pasture would be temporarily suspended for at least two years. The operator would use other pastures within the allotment. There would be no other impacts to the livestock operation of the grazing permittee.

In the long term, the proposed treatment would provide a benefit to livestock management. Opening up closing stands of juniper communities would increase grasses and forbs that are important to livestock. This treatment would increase the density and vigor of key livestock forage species such as western wheatgrass and thickspike wheatgrass, improving the nutritive quality and availability of these species to cattle.

Environmental Consequences, No Action: Increasing juniper replacement of sagebrush communities would reduce key forage grasses and important forbs and reduce the overall grazing capacity of this allotment. Additionally, as diversity declines (a factor of climax conditions in sagebrush and pinyon-juniper communities), these areas would become less resilient to impacts from livestock grazing and more susceptible to invasion by exotic annual species such as cheatgrass when inevitable wildfires do occur.

There would be no direct impacts to the livestock operations in the area under this alternative.

Mitigative Measures: None.

Name of specialist and date: Hunter Seim 5/23/11

REALTY AUTHORIZATIONS

Affected Environment: The proposed project area is near the community of Greystone and contains numerous utility and power line rights-of-way.

Environmental Consequences, Proposed Action: Existing power lines or other facilities could be accidentally damaged during project activities. Impacts would be temporary until any damage is repaired.

Environmental Consequences, No Action Alternative: None

Mitigative Measures: Potential damage to existing rights-of-way would be minimized by the following actions:

- Avoid existing rights-of-way during the project.
- Utilize the "One Call" system to locate and stake the centerline and limits of all underground facilities in the area prior to project initiation.
- Provide 48-hour notice to the owner/operator of all facilities prior to performing any work near existing rights-of-way.

Name of specialist and date: Louise McMinn 05/13/11

VEGETATION

Affected Environment: The proposed treatment would be located in sagebrush-grass and juniper woodland plant communities. Dominant plants present include Utah juniper (*Juniperus utahensis*), Wyoming big sagebrush (*Artemisia tridentata wyomingensis*), green rabbitbrush (*Chrysothamnus viscidiflorus*), Hood's phlox (*Phlox hoodii*), scarlet globemallow (*Spheralcea coccinea*), wooly plantain (*Plantago patagonica*), Indian ricegrass (*Oryzopsis hymenoides*), needleandthread (*Stipa comata*), and Sandberg bluegrass (*Poa sandbergii*). The proposed treatment is located on a Rolling Loam ecological site. All expected species for this site are present, but the Utah juniper is considered invasive. This is a late seral sagebrush community as indicated by an abundance of younger to middle-aged juniper intermixed within the sagebrush-dominated community.

Environmental Consequences, Proposed Action: The selective treatment of juniper would have the effect of maintaining and improving the shrub, forb, and grass components of shrub dominated plant communities by reducing or eliminating the increasing competition of juniper for water and nutrients. Additionally, juniper possesses strong allelopathic characteristics which strongly suppress other competing plants once the stands become established. This treatment would eliminate threats to existing shrub dominated communities by arresting juniper allelopathy.

The selective mowing of big sagebrush would result in further increases in the herbaceous component of the community. Increases in the abundance and vigor of perennial grasses and forbs would occur due to less competition for water and nutrients, but particularly increased access to sunlight from the reduction of the shrub canopy. Absent any disturbance such as fire,

green rabbitbrush would reestablish within five to ten years and big sagebrush would again be the dominant shrub in twenty to thirty years.

Since these are mechanical treatments, there would be no direct impact to the herbaceous component apart from the competitive advantage afforded by removal of the woody species.

Environmental Consequences, No Action Alternative: Disturbances, especially fire, could occur at some point and in an uncontrolled manner. Depending upon when such events occur, heavy fuel buildups could lead to hot, extensive burns within the other plant communities resulting in widespread type-conversions to undesirable annual plants within the plant communities.

Mitigative Measures: None.

Name of specialist and date: Hunter Seim 5/23/11

WILDLIFE, TERRESTRIAL

Affected Environment: Native plant communities within the treatment area consist of sagebrush stands with encroaching juniper trees. This community typically provides habitat for big game species as well as small mammals, reptiles and birds. The area provides winter habitat for mule deer, elk and pronghorn antelope.

Environmental Consequences, Proposed Action: The proposed mechanical treatment would create a mosaic of seral stages within the project area. Reducing tree and shrub cover would increase grasses and forbs. This would improve habitat for species that rely on the herbaceous component of the ecosystem for food and/or cover. Elk would likely be attracted to the area as new grasses emerge, creating more forage for this species. As cover of older sagebrush is removed, younger shrubs will establish, providing highly nutritional browse for big game species. Overall, the project would be compatible with maintaining productive habitat for wildlife species.

It is likely that the use of heavy equipment during treatment implementation would result in some short term disturbance to resident wildlife, mainly due to an increase in noise and human presence. Some species will be temporarily displaced from the area to adjacent habitats, but would be expected to return once the treatment is completed.

Environmental Consequences, No Action Alternative: Under the no action alternative, no fuels treatments would be implemented. Over time, sagebrush habitats would continue to be lost as pinyon-juniper woodland expansion continues. This may improve conditions for pinyon-juniper dwelling species while negatively impacting the sagebrush dependant species.

Mitigative Measures: None

Name of specialist and date: Desa Ausmus 5/20/11

CUMULATIVE IMPACTS SUMMARY:

This area is characterized by a mix of public and private ownership as well as some State owned land that is leased to grazing operators. Some of the private land has been subdivided and homes or cabins constructed on it. More subdividing and residential construction could occur in the future; however, the lack of a dependable/locatable aquifer for residential wells will likely limit future population growth. Vegetation treatments, in general, reduce the wildfire risk to houses and private property. The project area is utilized primarily for hunting and livestock grazing. The proposed action is compatible with other uses, both historic and present, and would have a positive net benefit to present and foreseeable land uses in the area. Future similar vegetation treatment projects may occur in the general vicinity. The cumulative impacts of future treatments will take into consideration any wild fires that have occurred so as to retain the net beneficial effects previously described below. There are no other know past, present, or future actions that would alter or add to the cumulative impacts described in this section.

Other vegetation treatments and wild fires have occurred in the surrounding area over the last 30 years that are in various stages of succession. The proposed action compliments these other disturbances to provide a mosaic of plant successional stages across the landscape. This has a direct link to providing a varied habitat for wildlife and sustaining viable populations of various species. This also helps to sustain livestock grazing at current stocking levels. Without periodic vegetation treatments or disturbances livestock carrying capacity gradually declines due to increasing shrub and tree cover and decreasing herbaceous production.

The cumulative impacts of vegetation treatments on soil erosion and watersheds should be one of stabilization. Although there could be short term increases in soil erosion due to temporarily exposed soil surface, herbaceous ground cover increases beyond pretreatment conditions within 1 to three years thereby providing better soil and watershed stability in the long term.

STANDARDS

PLANT AND ANIMAL COMMUNITY (animal) STANDARD: The project area provides habitat for a variety of terrestrial wildlife species. The treatment would return the area to a sagebrush/grass ecosystem and provide suitable habitat for wildlife species. The Proposed Action would meet this standard.

Name of specialist and date: Desa Ausmus 5/20/11

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (animal) STANDARD: The project located in greater sage-grouse habitat. This species is a BLM sensitive species and a candidate for federal ESA listing. Habitat quality has been reduced due to the encroachment of junipers into sagebrush stands. The proposed fuels project would open up older sagebrush stands and remove encroaching junipers. The Proposed Action would meet

this standard.

Name of specialist and date: Desa Ausmus 5/20/11

PLANT AND ANIMAL COMMUNITY (plant) STANDARD: The proposed treatment area is currently meeting this standard, although increasing juniper abundance and closing sagebrush canopies are beginning to suppress the herbaceous species that are expected on a Rolling Loam ecological site. In addition, undesirable annual species are increasing in abundance due to decreases competition from perennial grasses and forbs. The proposed action would revert the site to an earlier seral stage resulting in increased diversity and abundance of native grasses and forbs. The proposed action would meet this standard.

The no action alternative would result in increased conversion of a shrub and grass dominated community to a juniper woodland. While juniper woodlands are appropriate and expected communities on a number of sites in the vicinity, they are normally restricted to steeper slopes and thinner soils that what is present at the proposed treatment site. While the site is currently meeting this standard, this alternative would result in the site failing this standard in the long term.

Name of specialist and date: Hunter Seim 5/23/11

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (plant) STANDARD: There are no federally listed threatened or endangered or BLM sensitive plant species within the proposed project area. This standard does not apply.

Name of specialist and date: Hunter Seim 5/23/11

RIPARIAN SYSTEMS STANDARD: There are no riparian systems present within or near the project area. This standard does not apply.

Name of specialist and date: Emily Spencer, 5/23/11

WATER QUALITY STANDARD: This standard is expected to continue to be met for the proposed project area. There are no perennial surface waters within the project area and any surface runoff would flow north into a system of ephemeral tributaries that eventually reach the mainstem of the Green River and/or Vermillion Creek over ten miles downstream of the project area. While there are no impaired water bodies within the project area, the reach of Vermillion Creek downstream of the project area is on the monitoring list for suspected iron and *E. coli* issues of unknown origin. The project as planned is not expected to exacerbate any existing water quality issues in this area.

Name of specialist and date: Emily Spencer, 5/23/11

UPLAND SOILS STANDARD: The 2005 landscape health assessment concluded that this

standard is being met near the proposed project area. The project may cause some short term soil instability on the area targeted for fuel reduction but mitigating to the extent possible the potential for large wildfires will reduce large scale erosion over the long term. This standard would continue to be met with project implementation.

Name of specialist and date: Emily Spencer, 5/23/11

PERSONS/AGENCIES CONSULTED: Uintah and Ouray Tribal Council, Colorado Native American Commission, Colorado State Historic Preservation Office, Greystone residents and land owners, and the grazing permittee.

ATTACHMENTS: Map of project area illustrating area to receive vegetation treatment.

SIGNATURE OF PREPARER: /s/ Dale Beckerman

DATE SIGNED: 06/23/11

SIGNATURE OF ENVIRONMENTAL REVIEWER: /s/ Barb Blackstun

DATE SIGNED: 06/27/11

FINDING OF NO SIGNIFICANT IMPACT (FONSI)
DOI-BLM-CO-N010-2011-0004-EA

Based on the analysis of potential environmental impacts contained in the EA and all other available information, I have determined that the proposal and the alternatives analyzed do not constitute a major Federal action that would adversely impact the quality of the human environment. This determination is based on the following factors:

1. Beneficial, adverse, direct, indirect, and cumulative environmental impacts have been disclosed in the EA. Analysis indicated no significant impacts on society as a whole, the affected region, the affected interests or the locality. The physical and biological effects are limited to the Little Snake Resource Area and adjacent land.

2. Public health and safety would not be adversely impacted. There are no known or anticipated concerns with project waste or hazardous materials.

3. There would be no adverse impacts to regional or local air quality, prime or unique farmlands, known paleontological resources on public land within the area, wetlands, floodplain, areas with unique characteristics, ecologically critical areas or designated Areas of Critical Environmental Concern.

4. There are no highly controversial effects on the environment.

5. There are no effects that are highly uncertain or involve unique or unknown risk. Sufficient information on risk is available based on information in the EA and other past actions of a similar nature.

6. This alternative does not set a precedent for other actions that may be implemented in the future to meet the goals and objectives of adopted Federal, State or local natural resource related plans, policies or programs.

7. No cumulative impacts related to other actions that would have a significant adverse impact were identified or are anticipated.

8. Based on previous and ongoing cultural surveys and through mitigation by avoidance, no adverse impacts to cultural resources were identified or anticipated. There are no known American Indian religious concerns or persons or groups who might be disproportionately and adversely affected as anticipated by the Environmental Justice Policy.

9. No adverse impacts to any threatened or endangered species or their habitat that was determined to be critical under the Endangered Species Act were identified. If, at a future time, there could be the potential for adverse impacts, treatments would be modified or mitigated not to have an adverse effect or new analysis would be conducted.

10. This alternative is in compliance with relevant Federal, State, and local laws, regulations, and requirements for the protection of the environment.

I have reviewed the direct, indirect and cumulative effects of the proposed activities documented in EA No. DOI-BLM-N010-2011-0004 EA. I have also reviewed the project record for this analysis and the impacts of the proposed action and alternatives as disclosed in the Alternatives and Environmental Impacts sections of the EA. Based upon a review of the EA and the supporting documents, I have determined that the project is not a major federal action and will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. Because there would not be any significant impact, an environmental impact statement is not required.

SIGNATURE OF AUTHORIZED OFFICIAL: /s/ Matt Anderson

DATE SIGNED: 06/30/11

Decision Record
DOI-BLM-CO-N010- 2011-0004-EA

DECISION AND RATIONALE:
I have determined that approving this fuels reduction project is in conformance with the approved land use plan. It is my decision to implement the project with the specified mitigation measures. The project will be monitored as stated in the Compliance Plan outlined below.

MITIGATION MEASURES: The mitigation measures for this project are described in the environmental impacts section of the environmental analysis for cultural resources, paleontology, and realty authorizations.

COMPLIANCE PLAN(S):

Compliance Schedule
Compliance will be conducted during the implementation phase to insure that all specifications and mitigative measures outlined in EA No. DOI-BLM-N010-2011-0004 EA are followed. If contracted, contractor performance and progress will be documented by the assigned Contracting Officers Representative.

Monitoring Plan
Following implementation, the treated area will be mapped and filed with the project file and a copy given to the range staff. Photo plots will be established and new photos taken each year for the following three years to document vegetation response to the treatment. This monitoring will help determine the treatment effectiveness and document the need for additional mitigative measures or specification changes for future projects.

Assignment of Responsibility
Responsibility for implementation of the compliance schedule and monitoring plan will be assigned to the Fire Management Specialist in the Little Snake Field Office. .

Administrative Review or Appeal Opportunities
This decision is effective upon the date the decision or approval by the authorized officer. Under regulations addressed in 43 CFR Subpart 3165, any party adversely affected has the right to appeal this decision. An informal review of the technical or procedural aspects of the decision may be requested of this office before initiating a formal review request. You have the right to request a State Director review of this decision. You must request a State Director review prior to filing an appeal to the Interior Board of Land Appeals (IBLA) (43CFR 3165.4).

If you elect to request a State Director Review, the request must be received by the BLM Colorado State Office, 2850 Youngfield Street, Lakewood, Colorado 80215, no later than 20 business days after the date the decision was received or considered to have been received. The

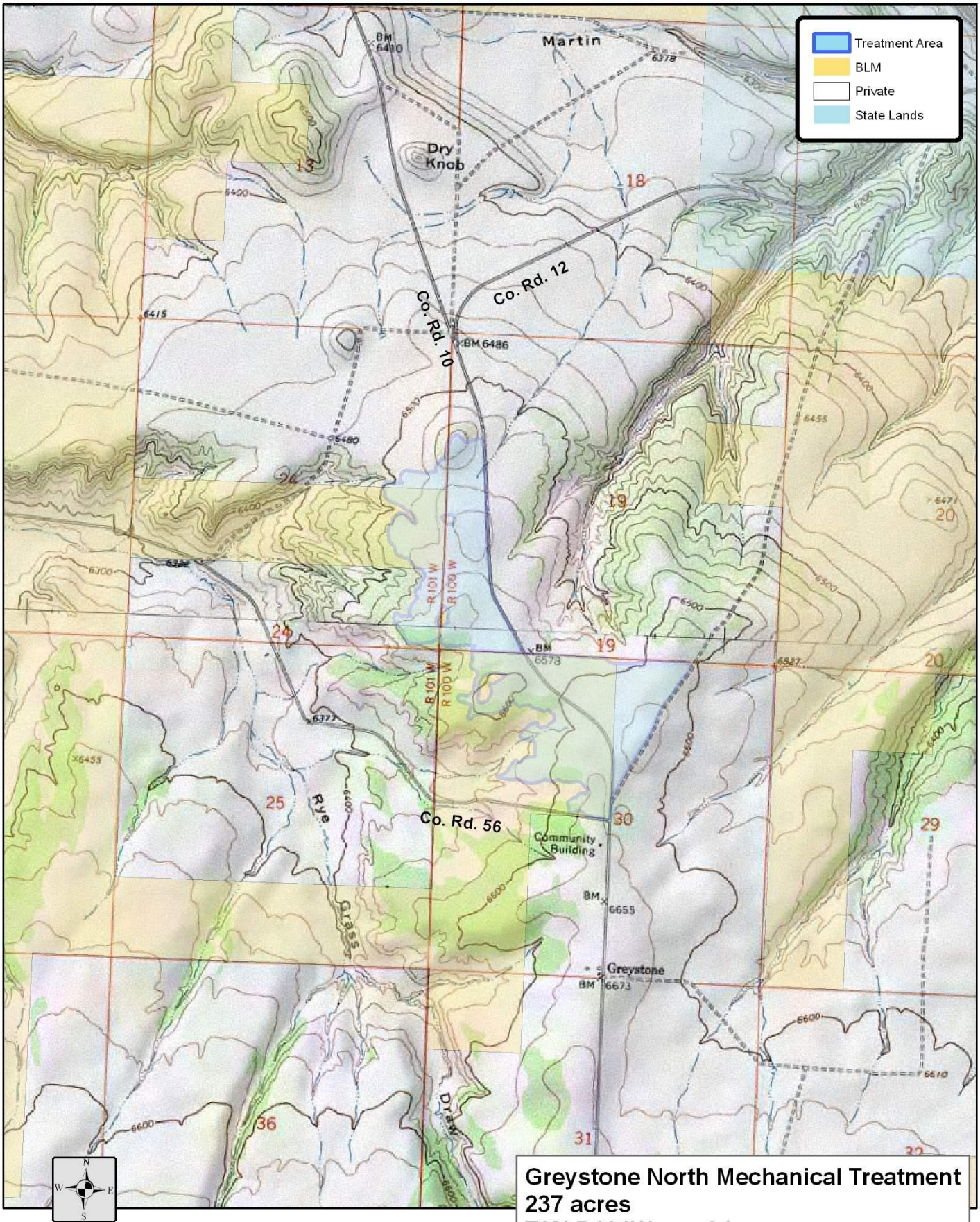
request must include all supporting documentation unless a request is made for an extension of the filing of supporting documentation. For good cause, such extensions may be granted. You also have the right to appeal the decision issued by the State Director to the IBLA.

Contact Person

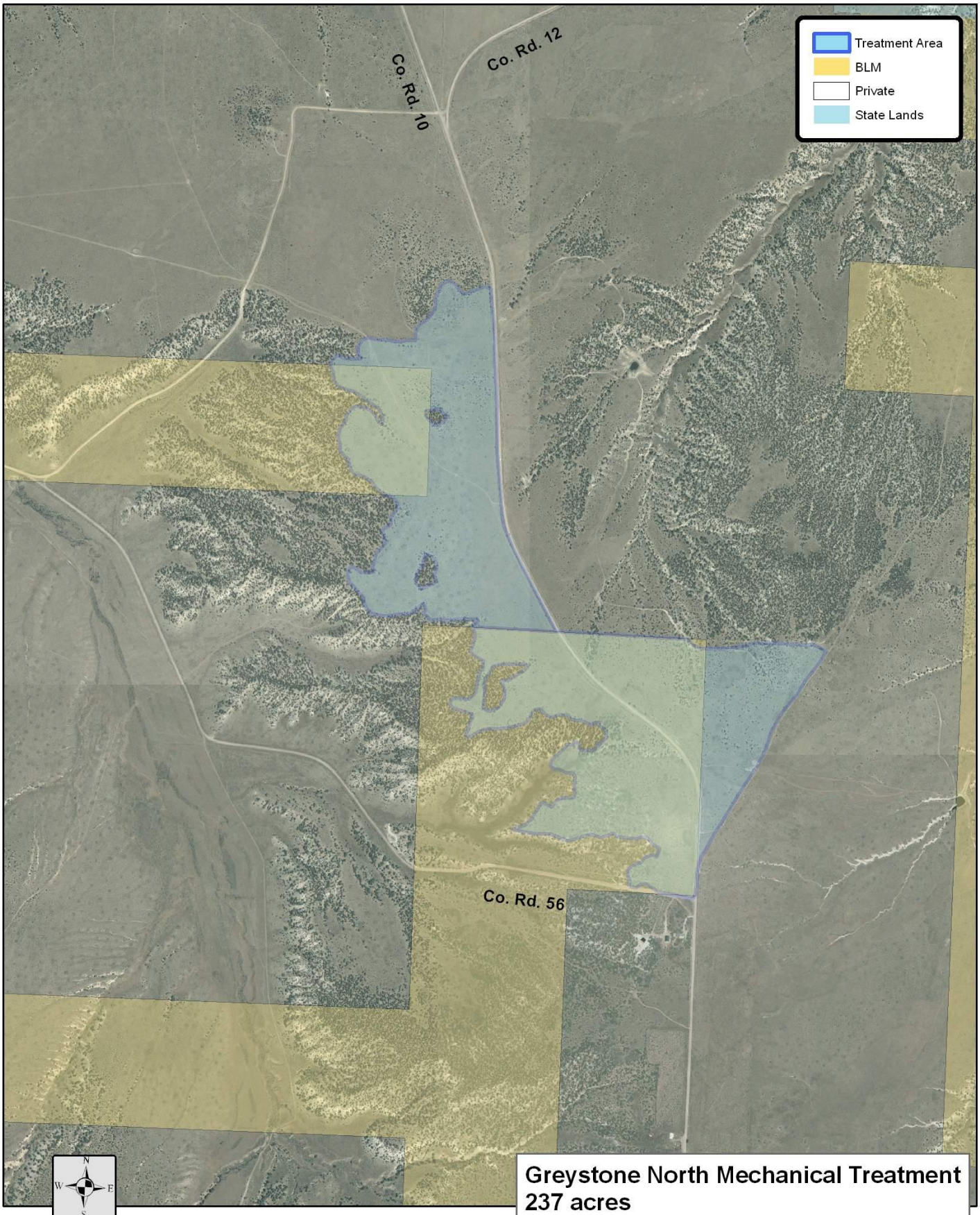
For additional information concerning this decision, contact Dale Beckerman, Fire Management Specialist, Little Snake Field Office, 455 Emerson Street, Craig, CO 81625, Phone (970) 826-5004.

SIGNATURE OF AUTHORIZED OFFICIAL: /s/ Matt Anderson

DATE SIGNED: 06/30/11



Greystone North Mechanical Treatment
237 acres
T8N R101W sec.24
T8N R100 W sec. 19 & 30



Greystone North Mechanical Treatment
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